Workplace Alaska

Class Specification
Chemist II

Created: 07/15/1997 by Rachel Wilson
Finalized on:
AKPAY Code: P8332
Class Outline Cat: B
Approved by:
Class Code: PK0122
Class Range: 16
Class Status: Active

Category:
Original Date: 01/01/1979
Class Title: Chemist II
Use MJR Form: Standard

Original Comments:
ESTABLISHED

Subsequent Revision Dates/Comments:
11/20/2001 - Audited (cpreecs)
09/25/2008 - Workplace AK spec revision: Added Census Job Code and AKPAY Code fields; Replaced Category field with Class Outline Category; Updated EEO4, SOC, and Class Code fields; Removed DOT field.

Last Update: **EEO4:** B **SOC:** 19-2031 **Census:** 02

Last Update Comments:

Definition:
The Chemist class series includes positions performing work that requires full professional education and training in the field of chemistry. Work is analytical in nature, involving investigation and interpretation of composition, molecular structure and properties of substances, transformations which they undergo, and the effects of such substances and transformations. Positions conduct a variety of analyses and present authoritative findings and conclusions. Work is primarily performed in laboratories.

Chemists develop, standardize or carry out methods and procedures for the analysis of compounds or substances, most commonly for the purposes of (1) detection, identification and quantification, (2) compliance with law, accepted standards or other requirements, (3) criminal investigation or law enforcement.

As chemistry is a broad field encompassing numerous branches and specialties, so this class is designed to be broad. All professional chemists have in common training and experience equivalent to the college training required for a bachelor's degree in chemistry. They are required to have knowledge of the broad field of chemistry and a working knowledge of basic principles of mathematics and physics, and the ability to relate and apply these principles to their work. The Chemist series covers all positions involving, for example, analytical chemistry, organic chemistry, inorganic chemistry, biochemistry, geochemistry, criminalistics or forensic chemistry, or other specializations depending upon the particular functions and objectives of agencies where the positions are located - - - where these jobs require a professional chemist background.

While the job classes are broadly prescribed, individual positions frequently require specialization (examples above). Beyond the entry level, positions typically require professional training and/or experience in specific area(s) of chemistry, and employee selection will be made on this basis.

Any Chemist position may be required to lead the work of laboratory assistants (nonprofessional, and/or professional assistants at higher levels) or work performed by field personnel, e.g., sample collecting and shipment, routine on-site testing procedures or the like. Lead responsibilities may be assigned on an intermittent or permanent basis, and are limited to a small number of assistants at any time, unless otherwise specified in the following descriptions.

Distinguishing Characteristics:
Chemist II is the first journey level or experienced class of professional chemist. As for the Chemist I class, assignments are primarily standard, routine and repetitive and/or are conducted in accordance with established procedures, methods and tests. Chemist II is distinguished from the lower level class, however, in that:
- greater variety and scope of analyses are assigned.
- more varied and advanced instruments and techniques are applied.
- knowledge and skill (gained through prior experience) are required in carrying out standard analyses, and proposed new methods, tests or procedures which have been worked out by other chemists, with the responsibility to carry out analyses as so guided and obtain complete, accurate and valid results.
- experience is required to know the nature and extent of analyses desired, to detect instances when standardized methodology appears inapplicable, and to recommend to the supervisor, or other available source of guidance, methodological modifications or other alternatives based on independent knowledge of the problem and study of pertinent resource material.
- a greater degree of independence in performing the work; although not frequently referred to, guidance is readily available in the form of established guides and standards for the work, or access to technical supervision or consultation.

Chemist II has two options: (1) the established performance level with responsibilities and limitations described in this section, or (2) an advanced trainee performance level with responsibilities and limitations as described but substantially characterized by training and developmental duties on assignments that are typical of the higher class levels.

Examples of Duties:

Knowledge, Skills and Abilities:

Working knowledge of basic principles of mathematics and physics, and the ability to relate these to laboratory assignments.

Knowledge of and ability to apply standard methods, procedures and techniques commonly used in chemical analytical work in one or more of the following: air or water quality, food, drugs, toxicology, mineralogy, metallurgy, criminalistics.

Knowledge of theoretical and practical limitations of established methodologies in one or more of the above.

Knowledge of related sciences and techniques sufficient to examine substances by nonchemical techniques such as microscopic examinations, physical measurements and mechanical tests.

Knowledge of basic theories, principles, facts and units of measurements in chemistry.

Ability to apply a knowledge of chemical structure, reactions and properties in order to determine deviations from the norm.

Ability to use standard laboratory techniques, instruments and methods.

Minimum Qualifications:

Graduation from college with a major in chemistry.
AND
One year of professional laboratory experience at the level of Chemist I with the State of Alaska or the equivalent elsewhere. Professional experience as a chemist, biochemist, geochemist, criminalist or closely related position is qualifying. Experience must have included responsibility for making quantitative and qualitative analyses.

Substitution: Graduate study in any of the chemistry related areas indicated in this section may substitute for the required experience on a year for year basis.

Required Job Qualifications:

(The special note is to be used to explain any additional information an applicant might need in order to understand or answer questions about the minimum qualifications.)

Special Note:

Minimum Qualification Questions:

Do you have a bachelor's degree in chemistry from an accredited college?

AND
One year of professional laboratory experience at the trainee level as a chemist, biochemist, geochemist, criminalist which included responsibility for making quantitative and qualitative analyses? This experience is equivalent to a Chemist I with the State of Alaska.

Or Substitution:

Do you have a bachelor's degree in chemistry from an accredited college?

AND
Do you have one year of any combination of graduate study (2 semester hours or 3 quarter hours equal one month experience) in chemistry, biochemistry, geochemistry, crinimalistics or a closely related field or professional laboratory experience at the trainee level as a chemist, biochemist, geochemist, criminalist which included responsibility for making quantitative and qualitative analyses? This experience is equivalent to a Chemist I with the State of Alaska.